IN THE CLAIMS

Please amend the claims as follows:

Claims 1-14 (Canceled).

Claim 15 (New): A process for treatment of fluids originating from a submarine oil field, performed on board of a floating unit, comprising:

delivering the fluid from the field to a high pressure gas/liquids separation stage, where the fluid is split into a gas phase substantially consisting of light hydrocarbon gases, and two liquid phases one of which mainly consists of water, the other substantially of hydrocarbon liquids;

delivering the light hydrocarbon gases, separated in the high pressure separation stage, to a reinjection gas compression unit having at least two compression stages;

delivering, after heating, the hydrocarbon liquid separated in the high pressure stage of separation to one or more further stages of gas/liquids separation operating at decreasing pressures, where, in each stage, the liquid is split into a gas phase essentially consisting of light hydrocarbon gases, and two liquid phases one of which mainly consists of water, the other mainly of hydrocarbon liquids;

delivering to a water treatment section the water separated both in the first high pressure separation stage and in the decreasing pressures separation stages;

delivering the light hydrocarbon gases, which have been separated in the decreasing pressure separation stages to corresponding compression units to recompress the gases, wherein to recompress gases in the compression units ejectors are employed, which use the compressed gas exiting from one of the compression stages of the reinjection gas compression unit as the driving fluid of each single ejector.

Claim 16 (New): The process according to claim 15, wherein the driving fluid of each single ejector is the compressed gas exiting from the second-last or from the last compression stage of the reinjection gas compression unit.

Claim 17 (New): The process according to claim 15, wherein the further decreasing pressure gas/liquids separation stages are in number of two, one at intermediate pressure and one at lower pressure.

Claim 18 (New): The process according to claim 17, wherein the driving fluid of the ejector of the compression unit of the hydrocarbon gas separated in the intermediate pressure stage is the compressed gas exiting from the last stage of the reinjection gas compression unit.

Claim 19 (New): The process according to claim 17, wherein the driving fluid of the ejector of the compression unit of the hydrocarbon gas separated in the lower pressure stage is the compressed gas exiting from the last stage of the reinjection gas compression unit.

Claim 20 (New): The process according to claim 15, wherein each stage of compression of the reinjection gas compression unit comprises at least a biphasic separator to remove liquid particles, a compressor, and a heat exchanger to cool the compressed gas.

Claim 21 (New): The process according to claim 20, wherein the compressed gas to be used as driving fluid is taken below the compressor.

Claim 22 (New): The process according to claim 21, wherein the compressed gas to be used as driving fluid is taken below the compressor before the cooling heat exchanger.

Claim 23 (New): The process according to claim 19, wherein the reinjection gas compression unit includes three compression stages.

Claim 24 (New): The process according to claim 15, wherein the last stage of separation at decreasing pressures is performed at sub-atmospheric pressure.

Claim 25 (New): The process according to claim 15, wherein the recompressed gases exiting from the compression units are used as fuel gases.

Claim 26 (New): The process according to claim 15, wherein the recompressed gases exiting the compression units are sent to the reinjection gas compression unit.

Claim 27 (New): A floating production unit comprising:

a treatment system for fluids originating from an oil field comprising a high pressure separator and at least a second lower pressure separator;

one reinjection gas compression unit having at least two compression stages; and

at least a compression unit equipped with a suitable ejector.

Claim 28 (New): The process according to claim 15, performed in a floating production unit.